

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	<b>ATTACHMENT B2: CPUC RETENTION REPORT QUALITY ASSESSMENT SHEET -- REALIZATION RATE STUDIES</b>														
2	NOTE: include page numbers of report for references to revisit information. Include score + description (1=poor, 5=very strong)														
3															
4	<b>BACKGROUND ON REPORTS</b>												<b>SURVEY / SAMPLING</b>		
5	<b>Report Number</b>	<b>Reviewer</b>	<b>Date Reviewed</b>	<b>Title</b>	<b>Report date</b>	<b>Utility Covered</b>	<b>Program</b>	<b>Sector(s) covered</b>	<b>Measure(s) covered / covered / Study</b>	<b>Dates covered / AEAP Year</b>	<b>ORA Report</b>	<b>Synopsis / Purpose</b>	<b>CPUC Protocol</b>	<b>Score for CPUC Protocol</b>	<b>Strategy / Basis</b>
6	<b>Assigned Id number</b>	<b>Last name of reviewer</b>	<b>Date</b>	<b>Title on Study</b>	<b>Date on Report</b>	<b>Utility Covered</b>	<b>Name of Program</b>	<b>Sector(s) covered</b>	<b>covered by the program / measures included in the study.</b>	<b>Dates for measures / Year AEAP was filed</b>	<b>if available, who did it, what were their recommen</b>	<b>Description of what the study covers</b>	<b>of how they discuss the protocols: Is the criteria of</b>	<b>Score1-5 with 5 being highest. Start with 3 if just meets</b>	<b>the sampling strategy whether it was</b>
7	396R1a,b,c,d,e,f	Woods/Dimetrosky	12/30/2003 and 4/15/04	3rd Earnings Claim - Realization Study of Power Savings Partner's Program	March-01	PG&E	Power Savings Partner's	Commercial/Residential	Res Lighting, Comm Lighting, Indus Process, Comm HVAC, Comm Refrig, Res Gas Boilers	1996 / 2001	Yes. They accept the realization rates presented by PG&E	This study estimates the realization rate for the Power Savings Partners Program in terms of peak kW, annual kWh, and annual therms.	The protocol is discussed in the body of the report. Detailed data are presented in the appendix	N/A (They appear to follow protocol but details are in the appendix)	Eight Partners that installed projects in 1996. It appears that a census was taken
8	398R1a,b,c,d,e,f,g	Woods/Dimetrosky	11/30/2003 and 4/15/04	Third Year Earnings claim Realization Rate Study. Program Year 1997	April-02	PG&E	Power Savings Partner's	Commercial/Industrial/Residential	Comm Lighting (PSP I and II), Comm Gas Boilers, Ind Process (PSP I and II), Res lighting, Res gas boilers	1997 / 1998	No Report	This study estimates the realization rate for the Power Savings Partners Program in terms of peak kW, annual kWh, and annual therms.	The protocol is discussed in the body of the report. Detailed data are presented in the appendix	N/A (They appear to follow protocol but details are in the appendix)	Eleven Partners that installed projects in 1997. It appears that a census was taken
9	399R2	Woods/Dimetrosky	12/29/2003 and 4/15/04	3rd Earnings Claim - Realization Study of Power Savings Partner's Program	March-00	PG&E	Power Savings Partner's	Commercial/Industrial	Comm lighting, Res lighting, Indus process	1995 / 2000	No Report	This study estimates the realization rate for the Power Savings Partners Program in terms of peak kW and annual kWh	The protocol is discussed in the body of the report. Detailed data are presented in the appendix	N/A (They appear to follow protocol but details are in the appendix)	136 sites from 8 total partners.
10	425a, b and 426a, b, and c	Dimetrosky	4/16/2004	PY 2000 2nd Earnings claim Realiz Rate Study of the PSP	March-02	PG&E	Power Savings Partner's	Commercial/Industrial	Comm lighting, Comm Traffic lighting, Comm hvac, Indus lighting, Indus process	2000 / 2002	No Report	This study estimates the realization rate for the Power Savings Partners Program in terms of peak kW and annual kWh	The protocol is discussed in the body of the report. Detailed data are presented in the appendix	N/A (They appear to follow protocol but details are in the appendix)	45 sites from 4 total partners.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5	Report Number	Reviewer	Date Reviewed	Title	Report date	Utility Covered	Program	Sector(s) covered	Measure(s) covered / Study	Dates covered / AEAP Year	ORA Report	Synopsis / Purpose	CPUC Protocol	Score for CPUC Protocol	Strategy / Basis
11	399 R2	Dimetrosky	4/16/2004	PY 1994 9th Year Retention Study PG&E PSP	March-04	PG&E	Power Savings Partner's	Commercial	Commercial Lighting	1994 / 2004	No Report	This study estimates the realization rate for the Power Savings Partners Program in terms of peak kW and annual kWh	The protocol is discussed in the body of the report. Detailed data are presented in the appendix	N/A (They appear to follow protocol but details are in the appendix)	39 site/enduse combinations from 5 total partners.
12	422 a, b, c, d, e and 423 a, b, c	Dimetrosky	4/16/2004	PY 1999 4th year retention study PG&E PSP	March-04	PG&E	Power Savings Partner's	Commercial/Industrial	Comm lighting (PSP I and II), Comm Traffic lights (PSP II), Comm HVAC (PSP I and II), Indus process (PSP II), Indus lighting (PSP II), Indus meters (PSP III)	1999 / 2004	No Report	This study estimates the realization rate for the Power Savings Partners Program in terms of peak kW and annual kWh	The protocol is discussed in the body of the report. Detailed data are presented in the appendix	N/A (They appear to follow protocol but details are in the appendix)	196 site/enduse combinations from 5 total partners.

	A	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
1	<b>ATTACHMENT</b>														
2															
3															
4	<b>BACKGROUND</b>														
5	Report Number	Score for Strategy / Basis	Strong population list?/ source	Survey? (type - onsite, phone, etc.)	ONSITE SURVEY	PHONE SURVEY	High quality field work,	Score for Quality of Fieldwork and	Inspection / verification	Respondents (participants)	Sample size -- is it sufficient?	Stratification method & appropriateness	Well-defined sampling	Bias Identification / Correction	Installation Population
6	Assigned Id number	Strategy Score: 1-5 with 5 being highest.	the source for the population list. Discuss the strength	Was a survey conducted? If so, what type, how many, etc.	YES [1], NO [0]	YES[1], NO [0]	Describe the field work and validation of the data	Fieldwork Score: 1-5 with 5 being highest.	how the status of the measures were	the correct respondents? What are the response	sample size? Report for each measure if	stratification criteria used and its appropriateness.	replacement and re-contact strategy used. Is it	attempts to identify any potential bias. Were corrections	the total installations in the program. Provide for
7	396R1 a,b,c,d,e,f	4	The population was all of the partners - 8 projects	On-site to verify equipment installation and PG&E records of energy usage, included equipment metering.	1	0	Not discussed.	3	On-site verification of equipment installation, included metering.	yes. All projects are partners.	Yes	None. All partners and measures are included	N/A	N/A	Sites: 435 Measures: Unknown
8	398R1a,b,c,d,e,f,g	4	The population was all of the partners - 11 projects	On-site to verify equipment installation and PG&E records of energy usage, included equipment metering.	1	0	Not discussed.	3	On-site verification of equipment installation, included metering.	yes. All projects are partners.	Yes	None. All partners and measures are included	N/A	N/A	Sites: 228 Measures: Unknown
9	399R2	4	The population was all the partners - 8	On-site to verify equipment installation and PG&E records of energy usage, included equipment metering.	1	0	Not discussed.	3	On-site verification of equipment installation, included metering.	yes. All projects are partners.	Yes	None. All partners and measures are included	N/A	N/A	Sites: 136. Measures: Unknown
10	425a, b and 426a, b, and c	4	The population was all the partners - 4	On-site to verify equipment installation and PG&E records of energy usage, included equipment metering.	1	0	Not discussed.	3	On-site verification of equipment installation, included metering.	yes. All projects are partners.	Yes	None. All partners and measures are included	N/A	N/A	Sites: 45. Measures: Unknown

	A	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
5	Report Number	Score for Strategy / Basis	Strong population list?/ source	Survey? (type - onsite, phone, etc.)	ONSITE SURVEY	PHONE SURVEY	High quality field work,	Score for Quality of Fieldwork and	Inspection / verification	Respondents (participants)	Sample size -- is it sufficient?	Stratification method & appropriateness	Well-defined sampling	Bias Identification / Correction	Installation Population
11	399 R2	4	The population was all the partners - 5	On-site to verify equipment installation and PG&E records of energy usage, included equipment metering.	1	0	Not discussed.	3	On-site verification of equipment installation, included metering.	yes. All projects are partners.	Yes	None. All partners and measures are included	N/A	N/A	Sites: 39 (including site/enduse combinations). Measures: Unknown
12	422 a, b, c, d, e and 423 a, b, c	4	The population was all the partners - 5	On-site to verify equipment installation and PG&E records of energy usage, included equipment metering.	1	0	Not discussed.	3	On-site verification of equipment installation, included metering.	yes. All projects are partners.	Yes	None. All partners and measures are included	N/A	N/A	Sites: 196 (including site/enduse combinations). Measures: Unknown

	A	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1	<b>ATTACHMENT</b>															
2																
3																
4	<b>BACKGROUND</b>															
5	Report Number	Installation Sample	Percent Installations	Savings Population	Savings Sample	Percent savings	Confidence Precision	Like Measures	Appropriate phrasing of	Other survey topics	Copy of instrument included?	Number of Measures	Number of Installations	Number in Sample	Number of Failures	Electronic data available?
6	Assigned Id number	the number of installations included in the	percent of the total installations included in the sample.	the total savings generated by the program?	the savings generated by the sample/analysis?	percent of the total savings generated by the	confidence and precision of the results? What	report identify measures that were not studied	survey phrase the questions appropriately? How	Discuss any other survey topics.	Was the survey included? [y/n]	number of measures included in the study. [number]	Number of Installations	number in Sample for all measures covered in	failures in sample for all measures [number]	available? What information is provided ?
7	396R1a,b,c,d,e,f	100%	100%	kW - 7,090. kWh - 49,231,720. Therms - 106,229	100%	100%	Not Clear, they claim precision is 100% at 90% confidence, this does not make sense. Report states "all load impact estimates are at or above the	None identified.	N/A	N/A	N/A	unknown	435 sites	435 sites	N/A	N/A
8	398R1a,b,c,d,e,f,g	100%	100%	kW - 5,996. kWh - 40,147,806. Therms - 1,790,030	100%	100%	Not Clear, they claim precision is 100% at 90% confidence, this does not make sense. Report states "all load impact estimates are at or above the	None identified.	N/A	N/A	N/A	unknown	228 sites	228 sites	N/A	N/A
9	399R2	100%	100%	Industrial Process:2,370,598 kWh. Residential Lighting: 1,098,441. Commercial Lighting: 36,034,941. Totals: peak kW: 5482	100%	100%	Not Clear, they claim precision is 100% at 90% confidence, this does not make sense. Report states "all load impact estimates are at or above the	None identified.	N/A	N/A	N/A	unknown	136 sites	136 sites	N/A	N/A
10	425a, b and 426a, b, and c	100%	100%	Totals: peak kW: 4,248, kWh: 29,314,830	100%	100%	Not Clear, they claim precision is 100% at 90% confidence, this does not make sense. Report states "all load impact estimates are at or above the	None identified.	N/A	N/A	N/A	unknown	136 sites	45 sites	N/A	N/A

	A	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
5	Report Number	Installation Sample	Percent Installations	Savings Population	Savings Sample	Percent savings	Confidence Precision	Like Measures	Appropriate phrasing of	Other survey topics	Copy of instrument included?	Number of Measures	Number of Installations	Number in Sample	Number of Failures	Electronic data available?
11	399 R2	100%	100%	Totals: peak kW: 757, kWh: 4,794,215	100%	100%	Not Clear, they claim precision is 100% at 90% confidence, this does not make sense. Report states "all load impact estimates are at or above the	None identified.	N/A	N/A	N/A	unknown	39 site/enduse combinations	39 site/enduse combinations	N/A	N/A
12	422 a, b, c, d, e and 423 a, b, c	100%	100%	Totals: peak kW: 8,315, kWh: 62,150,730	100%	100%	Not Clear, they claim precision is 100% at 90% confidence, this does not make sense. Report states "all load impact estimates are at or above the	None identified.	N/A	N/A	N/A	unknown	196 site/enduse combinations	196 site/enduse combinations	N/A	N/A

	A	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG
1	<b>ATTACHMENTS</b>															
2																
3																
4	<b>BACKLOG DATA MANAGEMENT / SCREENING</b>										<b>RETENTION MODELING</b>					
5	Report Number	Sources for data	Attrition	Checks	Unused Data	Outliers	Exogenous Factors	Data filters	Other Notes	Adequate description of methodology	Analytic Methods / Model Utilized	Rationale for selection	Alternative models	Score for methodology and modeling	Weighting	Measure lifetime / EUL results,
6	Assigned Id number	the data sources used in the analysis. Include the	the data attrition process beginning with the	the internal data quality checks and data quality procedures	summary of the data collected specifically for the	the treatment of outliers and missing data points.	what was done to control for the effects of	the procedures used to screen data for	other concerns with Data Management/ Screening	description of the methodology adequate? Discuss the	the final model specification used for the study.	State why to final specification was selected	competing models considered? Describe them.	Methodology Score: 1-5; 5 being highest	weight the data? Discuss how they did so.	estimate the EUL and the 80% confidence interval.
7	396R1 a,b,c,d,e,f	All partners in program were included.	N/A	N/A	N/A	N/A	N/A	N/A		They discuss the methodology used for a study of this nature. Estimation of energy savings.	N/A	N/A	N/A	N/A	N/A	N/A
8	398R1a,b,c,d,e,f,g	All partners in program were included.	N/A	N/A	N/A	N/A	N/A	N/A		They discuss the methodology used for a study of this nature. Estimation of energy savings.	N/A	N/A	N/A	N/A	N/A	N/A
9	399R2	All partners in program were included.	N/A	N/A	N/A	N/A	N/A	N/A		They discuss the methodology used for a study of this nature. Estimation of energy savings.	N/A	N/A	N/A	N/A	N/A	N/A
10	425a, b and 426a, b, and c	All partners in program were included.	N/A	N/A	N/A	N/A	N/A	N/A		They discuss the methodology used for a study of this nature. Estimation of energy savings.	N/A	N/A	N/A	N/A	N/A	N/A

	A	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG
5	Report Number	Sources for data	Attrition	Checks	Unused Data	Outliers	Exogenous Factors	Data filters	Other Notes	Adequate description of methodology	Analytic Methods / Model Utilized	Rationale for selection	Alternative models	Score for methodology and modeling	Weighting	Measure lifetime / EUL results,
11	399 R2	All partners in program were included.	N/A	N/A	N/A	N/A	N/A	N/A		They discuss the methodology used for a study of this nature. Estimation of energy savings.	N/A	N/A	N/A	N/A	N/A	N/A
12	422 a, b, c, d, e and 423 a, b, c	All partners in program were included.	N/A	N/A	N/A	N/A	N/A	N/A		They discuss the methodology used for a study of this nature. Estimation of energy savings.	N/A	N/A	N/A	N/A	N/A	N/A

	A	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV
1	ATT															
2																
3																
4	BACK			STAFF/MGMT		OTHER NOTES & COMMENTS									SPECIAL CRITERIA	
5	Report Number	Appropriate / defensible	Difference between adopted ex-ante and ex-post	Staff / experience	Management / Quality Control	Other notes and comments	Evaluation of Study -- weak / strong	Sum of all Scores	Evaluation score // A-F	Needs Work? Suggestions?	Original Order	Dollars [thousands] claimed	Area where weak (if C- or below)		PSP I or II	"N" year of study
6	Assigned Id number	What were their conclusions? defensible?	Specify a number if they adopt the ex-ante, then 0.	company and author (if available) did the study?	staff produce facility layout to show	on the study, discuss any concerns or issues not	Study - Discuss strong and weak points in the study	Sum of all scores [number]	Grade (A being highest)	should be done / re-done to improve this study?	Original Order	(1997) - Leah and Stuart researched these	Methodology, Sample Frame, Survey Design, etc.		PSP I or II	"N" year of study
7	396R1a,b,c,d,e,f	They estimate a realization rate for kW at 1.0, kWh at 1.08, and therms at 1.0.	1.08	Schiller & PG&E	No		Appendix appears to have actual sampling and metering data that is necessary to evaluate the number of measures that were metered	13	B	Would need review of Appendix to determine if protocols are truly met		\$47,619			PSP I	2
8	398R1a,b,c,d,e,f,g	Overall RR: kW is .93, kWh is .91, therms is 1.07.	1.07	Schiller & PG&E	No		Appendix appears to have actual sampling and metering data that is necessary to evaluate the number of measures that were metered	13	B	Would need review of Appendix to determine if protocols are truly met		\$19,050			PSP I and PSP II	2
9	399R2	Overall RR of 1.064 for kW and 1.0607 for kWh.	1.06	PG&E	No		Appendix appears to have actual sampling and metering data that is necessary to evaluate the number of measures that were metered	13	B	Would need review of Appendix to determine if protocols are truly met		\$46,393			PSP I and PSP II	4
10	425a, b and 426a, b, and c	Overall RR of .87 for kW and .89 for kWh.	0.87	PG&E	No		Appendix appears to have actual sampling and metering data that is necessary to evaluate the number of measures that were metered	13	B	Would need review of Appendix to determine if protocols are truly met					PSP II	2

	A	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV
5	Report Number	Appropriate / defensible	Difference between adopted ex-post	Staff / experience	Management / Quality Control	Other notes and comments	Evaluation of Study - weak / strong	Sum of all Scores	Evaluation score // A-F	Needs Work? Suggestions?	Original Order	Dollars [thousands] claimed	Area where weak (if C- or below)		PSP I or II	"N" year of study
11	399 R2	Overall RR of .80 for kW and .76 for kWh.	0.76	PG&E	No		Appendix appears to have actual sampling and metering data that is necessary to evaluate the number of measures that were metered	13	B	Would need review of Appendix to determine if protocols are truly met					PSP I	9
12	422 a, b, c, d, e and 423 a, b, c	Overall RR of .89 for kW and .95 for kWh.	0.89	PG&E	No		Appendix appears to have actual sampling and metering data that is necessary to evaluate the number of measures that were metered	13	B	Would need review of Appendix to determine if protocols are truly met					PSP I and PSP II	4

	A	BW	BX	BY	BZ	CA	CB
1	<b>ATTN</b>						
2							
3							
4	<b>BACKFOR REALIZATION RATE STUDIES</b>						
5	Report Number	Number of Partners	Number of Sector/Measure Combinations	Actual Sector/Measure Combinations	kW RR for Sector/Measure Combinations	kWh RR for Sector/Measure Combinations	Therm RR for Sector/Measure Combinations
6	Assigned Id number	Number of Partners	Number of Sector/Measure Combinations	Actual Sector/Measure Combinations	kW RR for Sector/Measure Combinations	kWh RR for Sector/Measure Combinations	for Sector/Measure Combinations
7	396R1 a,b,c,d,e,f	8	6	Res Lighting, Comm Lighting, Indus Process, Comm HVAC, Comm Refrig, Res Gas Boilers	Res Lighting (.96), Comm Lighting (1.01), Indus Process (.96), Comm HVAC (1.0), Comm Refrig (.95), Res Gas Boilers (na)	Res Lighting (.99), Comm Lighting (1.06), Indus Process (.96), Comm HVAC (1.0), Comm Refrig (1.32), Res Gas Boilers (na)	Res Lighting (1.0), Comm Lighting (na), Indus Process (na), Comm HVAC (na), Comm Refrig (na), Res Gas Boilers (na)
8	398R1a,b,c,d,e,f,g	11	5	Comm Lighting (PSP I and II), Comm Gas Boilers, Ind Process (PSP I and II), Res lighting, Res gas boilers	na	na	na
9	399R2	8	3	Comm lighting, Res lighting, Indus process	Comm lighting (1.0657), Res lighting (1.12), Indus process (.94)	Comm lighting (1.07), Res lighting (1.1196), Indus process (.875)	na
10	425a, b and 426a, b, anc c	8	3	Comm lighting, Comm Traffic lighting, Comm hvac, Indus lighting, Indus process	Comm lighting (.84), Comm Traffic lighting (1.0), Comm hvac (1.61), Indus lighting (1.0), Indus process (.85)	Comm lighting (.99), Comm Traffic lighting (1.0), Comm hvac (1.09), Indus lighting (1.0), Indus process (.77)	na

	A	BW	BX	BY	BZ	CA	CB
	Report Number	Number of Partners	Number of Sector/Meas ure Combinatio ns	Actual Sector/Meas ure Combinatio ns	kW RR for Sector/Meas ure Combination s	kWh RR for Sector/Meas ure Combination s	Therm RR for Sector/Meas ure Combination
5	399 R2						
11		5	1	Comm lighting	Comm lighting (.80)	Comm lighting (.76)	na
12	422 a, b, c, d, e and 423 a, b, c	5	6 (but two meas span mult PSPs, so shows as 8 combinations)	Comm lighting	Comm lighting psp II (.96), Comm Traffic PSP II (1.0), Comm HVAC PSP II (.66), Comm lighting PSP I (1.01), Comm HVAC PSP I (1.12), Indus process	Comm lighting psp II (1.02), Comm Traffic PSP II (1.0), Comm HVAC PSP II (.84), Comm lighting PSP I (1.04), Comm HVAC PSP I (1.41), Indus process	na